

REMARKS

Status of the Claims

Claims 1, 4–9 and 11–19 were previously pending in this Application. Claims 1, 5–8, and 11–14 have been amended herein. New Claim 20 is added. Support for this new claim can be found throughout the Specification, for example in Figs. 1 and 5, and p. 14, ll. 1–8.

Claim 1 has been amended herein to now recite that the charging means is mounted “to the image forming apparatus and having first contact point portion, second contact point portion and third contact point portion.” Further, Claim 1 has been amended herein to now recite “the battery is charged by containing the image forming apparatus in the container stand and the container stand having first contact terminal portion, second contact terminal portion, and third contact terminal portion, and the first contact terminal portion and the third contact terminal portion is conducted with the same polarity.” Support for these amendments can be found throughout the Specification, for example in Figure 5, and p. 13, l. 21 – p. 17, l. 8. Claims 5–8, and 11–14 have been similarly amended to recite “contact point portions” and “contact terminal portions.”

Applicants submit that no new matter has been added and respectfully request reconsideration of the Application in view of these amendments and the following remarks.

Claim Rejections – 35 U.S.C. § 103

Claims 1, 4–5, 9–11 and 16 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando, U.S. Patent No. 6,742,887, in view of Zurio et al., U.S. Patent No. 5,898,932. Claims 6–8 and 12–15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of Zurio et al. as applied to claims 1, 4–5, 9–11 and 16 above and further in view of Saji, U.S. Patent No. 5,479,486. Claim 17 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of Zurio et al. as applied to claims 1, 4–5, 9–11 and 16 above and further in view of Silverbrook et al., U.S. Patent No. 6,290,349. Claim 18 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Ando in view of Zurio et al. as

applied to claims 1, 4-5, 9-11 and 16 above and further in view of Bork, U.S. Patent No. 6,255,800.

Claim 1 recites, *inter alia*:

"1. An image forming apparatus, comprising: . . . charging means for charging the battery, wherein the charging means being mounted to the image forming apparatus and having first contact point portion, second contact point portion and third contact point portion, wherein the image forming apparatus is containable in a separate container stand . . . the container stand having first contact terminal portion, second contact terminal portion, and third contact terminal portion, and the first contact terminal portion and the third contact terminal portion is conducted with the same polarity, wherein said first contact point portion contacts with said first contact terminal portion, second contact point portion contacts with said second contact terminal portion and said third contact point portion contacts with said third contact terminal portion for charging the battery . . . wherein said contact point portions and said contact terminal portions are arranged such that said first contact point portion contacts with said third contact terminal portion, said second contact point portion contacts with said second contact terminal portion and said third contact point portion contacts with said first contact terminal portion when the image forming apparatus is contained in the container stand in a direction opposite to the predetermined direction, *and the battery is chargeable when the image forming apparatus is contained in the container stand in a direction opposite to the predetermined direction.*" (emphasis added)

Ando is directed to a portable electronic device with a printing mechanism enabling filling of the printing ink and/or disposal of the waste ink while the battery of the device is being charged. See Ando, col. 1, ll. 7-12. Figure 1 of Ando (see below) discloses a perspective view of the portable communication apparatus (1) incorporating power supply terminals (3), a magenta ink terminal (5), a cyan ink terminal (6) and a yellow ink terminal (7). See Ando, col. 1, l. 67-col. 2, l. 15. Figure 2 (see below) shows the portable communication apparatus (1) mounted on a charging/ink-filling/waste ink collection apparatus 8.

FIG. 2

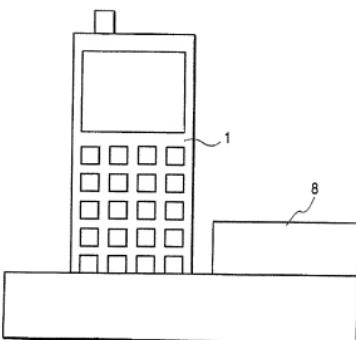
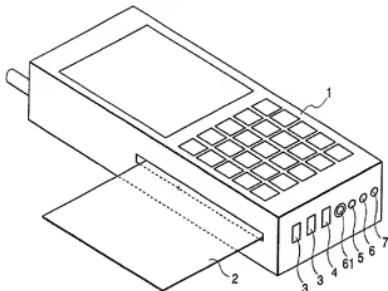


FIG. 1



The Office Action dated November 20, 2006 states that Ando does not disclose that:

“each of the contact terminal portions is in contact with any of the contact point portions to charge the battery in a combination different from the predetermined combination when the image forming apparatus mounting the charging means is contained in the container stand in a direction opposite to the predetermined direction,”

but indicates that Zurio et al. allegedly remedies this deficiency by disclosing a cellular phone whose charging stand has contact terminal portions arranged symmetrically such that the phone may be inserted into the stand regardless of orientation. *See* Office Action, 11/20/06, p. 4. The November 20, 2006 Office Action explains that Zurio et al., as well as other references such as Nocker, IV, U.S. Patent No. 6,236,486 and Wiegand et al., U.S. Patent No. 5,138,351, teach that the contact point portions on a device and the contact terminal portions on a charging stand may be arranged symmetrically. *See* Office Action, 11/20/06, p. 5.

Applicant respectfully submits, however, that there is no motivation to combine the teachings of Zurio et al., Nocker, IV and Wiegand et al. to remedy the deficiencies of Ando.

The 11/20/06 Office Action alleges that the motivation for the skilled artisan to incorporate the teachings of Zurio et al. with Ando “is to gain the benefit of simplicity and flexibility in the design of where to place contact portions for charging a device.” [11/20/06 Office Action, p. 5]. Applicants respectfully disagree.

First, the Office Action cites no specific part of the cited references in support of its alleged motivation. Second, nothing in Ando or Zurio et al. themselves teaches, discloses, or suggests that choosing to have “the battery [] chargeable when the image forming apparatus is contained in the container stand in a direction opposite to the predetermined direction,” as recited in Applicants’ Claim 1, achieves the benefit of simplicity and flexibility in the design. The references are silent as to any added benefits that are achieved through the use of symmetrical arrangement of the contact pins.

Indeed the embodiment in Figure 1 of Ando discloses an arrangement of power supply terminals and ink terminals along the bottom of the handset in an asymmetrical manner. The location of the ink terminals in Ando is such that for the device to operate properly, the ink terminals *must* be lined up with the charging/ink-filling/waste ink collection apparatus. A symmetrical arrangement between the power supply terminals (3) and ink terminals (5, 6, 7) and corresponding terminals (23, 25, 26 and 27) is simply not shown. Regardless of the orientation of these terminals with respect to each other and/or the orientation of the portable communication apparatus (1) within the collection apparatus (8), improper alignment would result because the terminals in Ando perform different functions. Thus there is no benefit of simplicity and flexibility shown in Ando for symmetrically arranging the contact portions, and therefore there is no motivation shown in the reference.

Zurio et al. does not disclose or suggest a motivation for simplicity and flexibility gained by having “the battery [] chargeable when the image forming apparatus is contained in the container stand in a direction opposite to the predetermined direction,” as recited in Applicants’ Claim 1. Similar to Ando, the handset in Zurio et al. would not properly recharge if

the it were set reversely into the recharging stand. In this instance, the positive contact would be in contact with the negative terminal and vice versa. (See col. 4, ll. 28-29 & Fig. 3). Therefore, Zurio et al. does not teach or disclose a motivation to gain the benefit of simplicity and flexibility in the design of where to place contact portions for charging a device.

Moreover, one of ordinary skill in the art would not be motivated to take the teachings of Nocker, IV and Wiegand et al. and combine them with Ando. As is the case of Zurio et al., the handheld data collection computer 10 of Nocker, IV would not properly charge if the “corresponding pair of electrical contacts 115” are not correctly coupled with electrical contacts 113. [Nocker, IV, Fig. 6, col. 7, ll. 57-64]. Similarly, in Wiegand et al., the “pair of electrical conductor pins 25 and 27” must be in correct electrical contact with conductor pins 15 and 17 to recharge properly. [Wiegand et al., col. 2, ll. 22-28]. Thus, these references also fail to suggest in their disclosures a motivation for simplicity and flexibility through the arrangement of symmetrical contacts.

For at least the above reasons, Applicants submit that amended independent claim 1 is patentably distinct from Ando, taken either alone or in combination with Zurio et al., Nocker, IV and/or Wiegand et al. Furthermore, Applicants submit that claims 4-9 and 11-19, which directly or indirectly depend from amended independent claim 1, are also patentably distinct from any of the cited references, taken either alone or combination, for at least similar reasons. Accordingly, Applicants request withdrawal of these grounds of rejection.

Applicants have not specifically addressed the rejections of the dependent claims. Applicants respectfully submit that the independent claim, from which they depend, are in condition for allowance as set forth above. Accordingly, the dependent claims also are in condition for allowance. Applicants, however, reserve the right to address such rejections of the dependent claims in the future as appropriate.

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CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this Application.

Respectfully submitted,
MORGAN & FINNEGAN, L.L.P.

By:


Matthew K. Blackburn
Registration No. 47,428

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Correspondence Address:
MORGAN & FINNEGAN, L.L.P.
3 World Financial Center
New York, NY 10281-2101
(212) 415-8700 Telephone
(212) 415-8701 Facsimile